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(54) Title: INFINITELY ADJUSTABLE ENGAGEMENT SYSTEM AND METHOD

(57) Abstract: A system for releasable engagement of two bodies where one of the bodies deforms the other body during the engagement process. The system includes a first body having an engagement surface that is made from a pseudo-elastic material. The pseudo-elastic material is maintained at an operating temperature that is above the martensite-austenite transition temperature for the material. The second body has an indenter surface that contacts the pseudo-elastic material and exerts sufficient stress to convert the material from the relatively hard austenite state to the relatively soft martensite state wherein the material conforms to the indenter shape. Upon release of the indenter contact stress, the pseudo-elastic material changes back to its original shape.

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